FILE NOTATIONS

Entered in N I D File _____
Entered On S R Sheet _____
Location Map Pinned _____
Card Indexed _____
I W R for State or Fee Land _____

Checked by Chief _____
Copy N I D to Field Office _____
Approval Letter _____
Disapproval Letter _____

COMPLETION DATA:

Date Well Completed 9-21-51
OW _____ WW _____ TA _____
GW _____ OS _____ PA ✓

Location Inspected _____
Bond released
State of Fee Land _____

LOGS FILED

Driller's Log _____
Electric Logs (No.) _____
E _____ I _____ E-I _____ GR _____ GR-N _____ Micro _____
Lat _____ Mi-L _____ Sonic _____ Others _____

Form 9-331 a
(March 1949)

Budget Bureau No. [illegible]
Approval expires [illegible]

Land Office Salt Lake City

Lease No. [illegible]

Unit Pintura

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED
MAR 12 1951
[illegible] CITY, UTAH

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	X	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

7 March, 19[illegible]

Well No. 1 is located [illegible] ft. from {N/S} line and 1[illegible] ft. from {E/W} line of sec. [illegible]

SW¼ SW¼ Sec [illegible]	[illegible] S.	13 W.	Salt Lake
(¼ Sec. and Sec. No.)	(Twp.)	(Range)	(Meridian)

Wildcat	Washington	Utah
(Field)	(County or Subdivision)	(State or Territory)

The elevation of the ~~derrick floor~~ Rotary Drive Bushing above sea level is [illegible] ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

6000' Test
800' - 13 3/8" - H-40 - 48# casing full hole cemented from 0-800'
20# - J-55 casing cemented for completion with 6000# test well head equipment to be used.
Baroid Mud Logging Unit from surface casing seat to T.D.
Will core and test all shows of oil and gas.
Estimated Horizons:

Navajo	- surface
Chinle	- 800
Shinarump	- 2100
Moenkopi	- [illegible]
Kaibab	- [illegible]
Coconino	- 4705

(SEE ATTACHED RIDER FOR APPROVAL)

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company SUN OIL COMPANY

Address Box 1790
Denver, Colorado

By [signature]

Title [signature]

U. S. GOVERNMENT PRINTING OFFICE 16-8437-8

Budget Bureau No. 42-R358.4.
Approval expires 11-30-51.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office Salt Lake City
Lease Number 07126
Unit Pintura

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah County Washington Field Wildcat (Pintura area)

The following is a correct report of operations and production (including drilling and producing wells) for the month of April, 19 51

Agent's address P. O. Box 293, Salt Lake City, Ut. Company Ohio Oil Company

Phone 3-7116 Signed [signature] Agent's title District Geologist

Sec. and ¼ of ¼	Twp.	Range	Well No.	Days Produced	Barrels of Oil	Gravity	Cu. Ft. of Gas (In thousands)	Gallons of Gasoline Recovered	Barrels of Water (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE SW SW of Sec. 33	39S	13W	1							April 30 - TD 2083' 13 3/8" casing cemented at 1080'. At present operators are attempting to regain lost circulation before washing over fish which consists of 2½ stands of 4½" drill pipe, 4 drill collars and 9 5/8" bit.

ORIGINAL FORWARDED TO CASPER

RECEIVED
MAY 2 - 1951
OIL & GAS DIVISION
GEOLOGICAL SURVEY
SALT LAKE CITY, UTAH

NOTE.—There were no runs or sales of oil; no M. cu. ft. of gas sold; no runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
(May 1944)

16—[illegible]-4 U. S. GOVERNMENT PRINTING OFFICE

Budget Bureau No. 42-R358.1.
Approval expires 11-30-49.

Form 9-331 a
(March 1942)

(SUBMIT IN TRIPLICATE)

Land Office Salt Lake City

Lease No. 071620

Unit 1

33

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APR 7 1951

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF surface CASING	X
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

April 11, 19 51

Well No. 1 is located 398 ft. from {N/S} line and 872 ft. from {E/W} line of sec. 33

SE SW SW Section 33 (¼ Sec. and Sec. No.) 39S (Twp.) 13W (Range) Salt Lake (Meridian)

Wildcat (Field) Washington County (County or Subdivision) Utah (State or Territory)

The elevation of the derrick floor above sea level is 5250 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

17½" hole. TD 1141'. Ran 1080' of 13 3/8" J55, 8 round thread casing. Cemented at 1080' with 500 sacks cement, 108 sacks stratocrete and 20 sacks gel. Mixed 1 to 1 with 4% gel with average slurry weight of 11 3/4#. Circulation pressure 250#. Final pressure 750#. Bled back to 500#. Lane-Wells temperature bomb indicated top of cement at 240' from surface. With 1" pipe outside of surface casing, pumped in 140 sacks cement. Obtained returns, however, cement settled back to 240'. Re-cemented with 1" pipe. Hung at 140', with 110 sacks. No returns to surface. Top of cement found at 85'. Recemented with 1" pipe with 32 sacks. Good returns. Cement held to surface. Landed surface pipe and installed blowout equipment. Closed Shaffer rams and tested pipe for two hours with 1000# pressure. Top of cement plug found at 1032'.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Sun Oil Company

Address P. O. Box 903

Salt Lake City, Utah

By C. A. Stapleton

Title District Geologist

U. S. GOVERNMENT PRINTING OFFICE 16-8487-8

[illegible]

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah *County* Washington *Field* Pintura (Wildcat)

The following is a correct report of operations and production (including drilling and producing wells) for the month of May, 19 51,

Agent's address Box 903
Salt Lake City, Utah

Phone 3-7116

Company [illegible]

Signed [signature]

Agent's title District Geologist

Sec. and ¼ of ¼	Twp.	Range	Well No.	Days Produced	Barrels of Oil	Gravity	Cu. Ft. of Gas (In thousands)	Gallons of Gasoline Recovered	Barrels of Water (If none, so state)	Remarks (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE SW SW Sec 33	39S	13W	1							Failed to recover fish. Set whipstock #1 at [illegible] -- came back into hole. Set whipstock #2 at 1438'. Set total of 40 cement plugs [illegible] to lost circulation and whipstocks. Total depth as of May 31 - 2122'. Drilling ahead with good circulation.

JUN 6 - 1951

ORIGINAL FORWARDED TO CASPER

RECEIVED
JUN 6 - 1951
U. S. OIL & GAS BR.
GEOLOGICAL SURVEY
SALT LAKE CITY, UTAH

NOTE.—There were no runs or sales of oil; no M. cu. ft. of gas sold;
no runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
(May 1944)

[illegible] U. S. GOVERNMENT PRINTING OFFICE

Budget Bureau No. 42-R356.3.
Approval expires 12-31-52.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LAND OFFICE Salt Lake City
LEASE NUMBER 071620
UNIT 1

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah *County* Washington *Field* Pintura (Wildcat)

The following is a correct report of operations and production (including drilling and producing wells) for the month of June, *19* 51

Agent's address P. O. Box 903 *Company* Sun Oil Company

Salt Lake City, Utah *Signed* Frank Neighbor

Phone 3-7116 *Agent's title* District Geologist

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE SW SW Sec 33	39S	13W	1							Total depth on June 30 - 3293'. Drilling ahead.

RECEIVED
JUL 3 - 1951
SALT LAKE CITY, UTAH

NOTE.—There were no runs or sales of oil; no M. cu. ft. of gas sold; no runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
(January 1950)

16—25766-8 U. S. GOVERNMENT PRINTING OFFICE

Budget Bureau No. 42-R356.5.
Approval expires 12-31-60.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LAND OFFICE Salt Lake City
LEASE NUMBER 071620
UNIT 1

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah *County* Washington *Field* Wildcat (Pintura area)

The following is a correct report of operations and production (including drilling and producing wells) for the month of July, 1951.

Agent's address P. O. Box 903 *Company* Sun Oil Company

Salt Lake City, Utah *Signed* Frank Neukom

Phone 3-7116 *Agent's title* District Geologist

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE SW SW SEC.33	39S	13W	1							Have had considerable lost circulation trouble during month. July 28 - twisted off pipe in hole - top of fish 1262'. Fishing. Total depth on July 31 4441'

AUG 31 1951

ORIGINAL FORWARDED TO CASPER

NOTE.—There were NO runs or sales of oil; NO M. cu. ft. of gas sold; NO runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
(January 1950)

16—25706-5 U. S. GOVERNMENT PRINTING OFFICE

Budget Bureau No. 42-R356.5.
Approval expires 12-31-52.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LAND OFFICE Salt Lake City
LEASE NUMBER 071620
UNIT 1

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah County Washington Field Wildcat (Pintura area)

The following is a correct report of operations and production (including drilling and producing wells) for the month of August, 19 51,

Agent's address P. O. Box 903, *Company* Sun Oil Company

Phone: 3-7116 *Signed* [signature]

Address: Salt Lake City, Utah *Agent's title* District Geologist

Sec. and ¼ of ¼	Twp.	Range	Well No.	Date Produced	Barrels of Oil	Gravity	Cu. Ft. of Gas (In thousands)	Gallons of Gasoline Recovered	Barrels of Water (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE SW SW Sec. 33	39S	13W	1							This well was drilled to a total depth of 4534' at which depth Schlumberger electric log and temperature survey were run prior to the setting of 7" casing. A protective string of 7" casing was cemented with 200 sacks at 4532'. Casing was tested after which the well has drilled ahead and is presently drilling at 4830' in light to dark gray limestone of the Kaibab formation which is believed to have been topped at 4498'.

RECEIVED
SEP 6 - 1951

NOTE.—There were no runs or sales of oil; no M. cu. ft. of gas sold; no runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE. Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
(January 1950)

16—25706-5 U. S. GOVERNMENT PRINTING OFFICE

Budget Bureau No. 42-R358.1.
Approval expires 11-30-49.

Form 9-331a
(March 1942)

33

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office Salt Lake City
Lease No. 071620
Unit #1

RECEIVED
AUG 14 1951

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL	SUBSEQUENT REPORT OF REDRILLING OR REPAIR
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY
NOTICE OF INTENTION TO ABANDON WELL	Subsequent Report of 7" Protective Casing X

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

August 13, 1951

Well No. 1 is located 398 ft. from {N/S} line and 872 ft. from {E/W} line of sec. 33

SE SW SW Section 33 (¼ Sec. and Sec. No.) | 39S (Twp.) | 13W (Range) | Salt Lake (Meridian)

Wildcat (Field) | Washington County (County or Subdivision) | Utah (State or Territory)

The elevation of the derrick floor above sea level is 5250 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

TD 4534'. 9 5/8" hole. 7" O.D. 23# J-55 8 round thread regular National SS casing was set at 4532' and cemented with 200 sx regular cement with 16# slurry. Haliburton float and guide shoe were used. Float set at 4489'. Plan to test casing and drill plugs August 13, 1951. Will diamond core ahead.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Sun Oil Company

Address P. O. Box 903,

Salt Lake City, Utah

By Frank T. Neighbor

Title District Geologist

U. S. GOVERNMENT PRINTING OFFICE 16-8457-3

Budget Bureau No. 42-R358.4.
Approval expires 12-31-52.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LAND OFFICE Salt Lake City
LEASE NUMBER 071680
UNIT 1

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah County Washington Field Wildcat (Pintura Area)

The following is a correct report of operations and production (including drilling and producing wells) for the month of September, 1951

Agent's address P. O. Box 903, Salt Lake City, Utah Company Sun Oil Company

Signed Frank Neighbor

Phone 3-7116 Agent's title District Geologist

Sec. and ¼ of ¼	Twp.	Range	Well No.	Date Produced	Barrels of Oil	Gravity	Cu. Ft. of Gas (In thousands)	Gallons of Gasoline Recovered	Barrels of Water (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE SW Sect. 33	39S	13W	1							Drilled limestone and anhydrite of Kaibab formation from 4874' to 5294'. Drilled sandstone of the Coconino formation from 5294' to total depth of 5496'. The well was plugged and abandoned as a dry hole on 9-21-51 after running an electric log to a total depth of 5496' and a temperature survey and after recovering 1455' of 7" casing. 7" casing had been cemented at 4532'. A 37 sack plug was placed from 1455' to 1407' at the top of the 7" which was left in the hole. A 42 sack plug at 1110' to 1060' at the base of the surface pipe which had been cemented to the surface. 20 sack plug was placed in the surface pipe from 27' back to the surface.

RECEIVED
OCT 3 - 1951
U.S. GEOLOGICAL SURVEY
SALT LAKE CITY, UTAH

NOTE.—There were No runs or sales of oil; No M. cu. ft. of gas sold; No runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
(January 1950)

16—25706-5 U. S. GOVERNMENT PRINTING OFFICE

Form 9-331a
(Feb. 1951)

Budget Bureau 42-R358.4
Approval expires 12-31-52

Salt Lake City, Utah

33

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office 071620
Lease No. #1
Unit

RECEIVED

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL	X		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

September 21, 19 51

Well No. 1 is located 398 ft. from [N/S] line and 872 ft. from [E/W] line of sec. 33

SE SW, Section 33 39S 13W Salt Lake
(¼ Sec. and Sec. No.) (Twp.) (Range) (Meridian)

Wildcat (Pintura) Washington County Utah
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 5250 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Electric survey was run to a total depth of 5496' which indicated along with our sample and core information that the well contains no shows of oil and/or gas. We have drilled 202' into the Coconino, our objective. 13 3/8" surface pipe was cemented at 1080' and 7" casing was cemented at 4532' with 200 sacks of cement. The 13 3/8" casing was cemented to the surface and the top of the cement around the 7" casing was found at 3484'. It is our intention to plug and abandoned this well after recovering as much 7" casing as possible. If it is possible to get inside the 7" casing, the following plugs will be set: 5250'-5300'; 2900'-2950'; 2050'-2100'; 1060'-1110' and top of the surface pipe with 4' marker. In the event we cannot get inside of the 7" casing, a cement plug will be set at the top of the shot off string and subsequent plugs according to the above data.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Sun Oil Company

Address PO Box 903,

Salt Lake City, Utah

By Frank T. Crighton

Title District Geologist

U. S. GOVERNMENT PRINTING OFFICE 16-8437-4

Form 9-331 a
(Feb. 1951)

33

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Budget Bureau 42-R358.4
Approval expires 12-31-[illegible]

Land Office Salt Lake City, Utah
Lease No. 071620
Unit #1

SEP 27 1951

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	X
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

September 26, 1951

Well No. 1 is located 398 ft. from {N/S} line and 872 ft. from {E/W} line of sec. 33

SE SW SW Section 33 (¼ Sec. and Sec. No.) 39S (Twp.) 13W (Range) Salt Lake (Meridian)

Wildcat (Pintura) (Field) Washington County, (County or Subdivision) Utah (State or Territory)

The elevation of the derrick floor above sea level is 5250 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Electric survey was run to a total depth of 5496' after which the well was plugged and abandoned September 21, 1951. 7" casing had been run to a total depth of 4532' and cemented with 200 sacks. The temperature survey indicated the top of the cement to be at 3484'. The 7" casing was shot off at 1455'* The casing was splintered and attempts to get back inside the 7" casing were unsuccessful. A plug of 37 sacks of cement was spotted from 1407'-55' top of 7" casing; plug of 42 sacks was spotted from 1060'-1110'. This plug was placed at the bottom of our 13 3/8" surface pipe. A top plug of 20 sacks was placed from 27' to the surface and a 4" marker pipe inserted in the top. With the 7" casing remaining in the hole and well cemented plus the plugs as noted above, we believe that any water would be well shut off.

*and pulled.

Inspected by District Engineer on May 14, 1952 and found to be satisfactory.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Sun Oil Company

Address PO Box 903,

Salt Lake City, Utah

By *Frank Neighbor*
Frank Neighbor
Title District Geologist

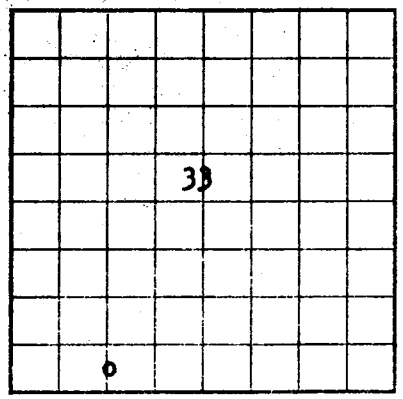
C A Hauptman

U.S. GOVERNMENT PRINTING OFFICE 16-8437-4

Budget Bureau No. 42-R355.1.
Approval expires 11-30-49.

Form 9-330

U. S. Land Office Salt Lake City
Lease No. 071620
Serial Number
Lease or Permit to Prospect



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED
NOV 28 1951
U. S. GEOLOGICAL SURVEY
SALT LAKE CITY, UTAH

NOV 2 8 1951

LOG OF OIL OR GAS WELL

Company SUN OIL COMPANY Address PO Box 903, Salt Lake City, Utah

Lessor or Tract Pintura Unit #1 Field Wildcat State

Well No. 1 Sec. 33 T. 39S R. 13W Meridian Salt Lake County Washington

Location 398 ft. {N. / S.} of S Line and 872 ft. {E. / W.} of W Line of Section 33 Elevation 5250'
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed Frank Neighbor
Frank Neighbor
Title District Geologist

Date October 29, 1951

The summary on this page is for the condition of the well at above date.

Commenced drilling March 18, 19 51 Finished drilling September 19, 1951 19

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from to No. 4, from to

No. 2, from to No. 5, from to

No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

No. 1, from 2247' to 2272' No. 3, from 2550' to 2618'

No. 2, from 2332' to 2347' No. 4, from 5300' to 5496' (tight)

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From—	Perforated To—	Purpose
20"				40'					conductor
13 3/8"	40#	8 round	J55	1080'	Larkin guide shoe				surface pipe
7"	23#	8 round	J55	4532'	Halliburton float and guide shoe				protection string

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
20"	40'	115 sacks	circulated	14#	
13 3/8"	1078'	910 sacks	circulated with open drill pipe	11 3/4#	4% gel
7"	4532'	200 sacks	circulated with open drill pipe	16#	

PLUGS AND ADAPTERS

Heaving plug—Material cement Length 48' and 50' Depth set 1407' - 1455'
1060' - 1110'

Adapters—Material Size 0' - 27'

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

FOLD

13 3/8"	1075'	910 sacks	circulated with 11 3/4# open drill pipe	4% gel
7"	4502'	200 sacks	circulated with 16# open drill pipe	

FOLD

PLUGS AND ADAPTERS

Heaving plug—Material cement Length 48' and 50' Depth set 1407' - 1455'
1060' - 1110'

Adapters—Material Size 0' - 27'

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from surface feet to ~~5496'~~ TD feet, and from ..... feet to ..... feet

Cable tools were used from ..... feet to ..... feet, and from ..... feet to ..... feet

DATES

....., 19... Put to producing ....., 19...

The production for the first 24 hours was ..... barrels of fluid of which ..... % was oil; ..... %

emulsion ..... % water, and ..... % sediment. Gravity, °Bé. .....

If gas well, cu. ft. per 24 hours ..... Gallons gasoline per 1,000 cu. ft. of gas .....

Rock pressure, lbs. per sq. in. .....

EMPLOYEES

Contractor: Dunlap & Graham, Driller ....., Driller

....., Driller ....., Driller

FORMATION RECORD

FROM	TO	TOTAL FEET	FORMATION
			SEE ATTACHED SHEETS FOR WELL LOG AND FOR LOST CIRCULATION PLUGS.

WELL REPORT

Sun Oil Company #1 Pintura Unit

Washington County, Utah

WELL DATA

Location: 398' from south line and 872' from west line, section 33, T39S, R13W
Commenced: March 18, 1951
Abandoned: September 19, 1951
Contractors: Dunlap & Graham of Long Beach, California

CASING RECORD

20" conductor set at 40' with 115 sacks
13 3/8" at 1078' with 910 sacks
7" protector string set at 4532' with 200 sacks

SURVEYS

Schlumber electric log from 1078' to 5436'
Temperature: Open hole survey log 1078' to 4532'
Temperature survey after casing 1078' to 4532'
Bottom hole temperature survey at 5436' (130°F)
Baroid Mud Logging Unit from 1383' to 1698'
Straight hole surveys were made at intervals during the drilling of the well. These varied from 0° to approximately 7°. Most of the deviations were approximately 360°E.

WHIPSTOCKS

#1 - 1420'
#2 - 1438'

CEMENT PLUGS

Total of 68 plugs were set in an effort to shut off lost circulation zones. A detailed record of the plugs, as furnished by the production department, is as follows:

Plug No.	Depth	Top - Bottom	Sacks Cement	Remarks
1	947	914 - 919	30	2 sacks Seal Flake 2 sacks Gel
2	939	915 - 958	50	
3	965	918 - 928	100	
4	928	No Plug	100	
5	918	No Plug	20	20 sacks Cal Seal
6	918	852	20	" " " "
				*surface pipe set and cemented to top
7	1608	1407	250	Did not drill out
8	1406	1407	100	" " " "
9	1407	1365	100	" " " "
10	1363	1324	130	" " " "

Plug No.	Depth	Top- Bottom	Sacks Cement	Remarks
11	1382	1305	100	Did not drill out
12	1304	1142	40	" " " " 2 Cal Seal
13	1132	1070	60	" " " " 30 Cal Seal
		110 mushy		
14	1132	1114 solid	60	" " " " 30 Cal Seal
15	1112	1114 solid	30	" " " " 15 Cal Seal
1 16	1112	1100 mushy	75	" " " "
17	1104	941 -1617		60 Cal Seal
18	1700	1660 - 1695	20	20 Cal Seal
19	1700	No Plug		34 Cal Seal
20	1700	1610 - 1646	20	20 Cal Seal
21	1642	1660	20	Did not drill out 20 Cal Seal
22	1642	No Plug	20	20 Cal Seal
23	1642	1622	20	20 Cal Seal
24	1620	1590	10	10 Cal Seal
		1370 mushy		
25	1588	1410 firm	100	
26	1238	1204	30	30 Cal Seal
27	1573	No Plug	100	20% plastic sand
28	1708	No Plug	30	30 Cal Seal
29	1708	1678 mushy	20	20 Cal Seal
30	1712	1672 - 1712		25 Cal Seal
31	1711	No Plug	20	20 Cal Seal
32	1713	1663 -1713	40	
33	1733	1692 - 1739	35	15 Cal Seal
34	1790	1780 - 1788	40	
35	1996	No Plug	36	25% Seal Flake
36	1993	No Plug	40	25% Strata Crete
37	1798	1739 - 1772	40	25% Flow Seal
38	1776	1760 - 1776	25	25% Strata Crete
39	1713	1752 - 1758	35	
40	2116	2088 - 2117	40	25% Strata Crete
41	2121	2066 - 2114	40	
42	2337	2304 -2338	40	25% Strata Crete
43	2622	2614 - 2623	35	15% Seal Flake
44	2623	No Plug	25	20% Strata Crete
45	2639	No Plug	25	10% Seal Flake
46	2637	2604 - 2638	35	25% Seal Flake
47	2759	No Plug	30	
48	2759	2751 - 2759	30	
49	2763	2705 - 2760	35	10% Seal Flake
50	2763	2625 - 2760	30	52% Strata Crete
				15% Seal Flake
51	2769	2756	50	52% Sreata Crete
52	2755	2639 - 2747	50	
53	2746	2708 - 2745 soft	40	
		2745 - 2770 hard		
54	2910	2809 - 2840	40	
55	2855	2600 - 2911	55	
56	2978	No Plug	40	

Plug No.	Depth	Top - Bottom	Sacks Cement	Remarks
57	[illegible]	[illegible]	50	[illegible] Strata Crete
58	2898	No Plug	50	
59	2798	2656 - 2895	50	
60	2979	2864 - 2980	50	50# Strata Crete
61	3678	3588	55	Did not drill out
62	3587	3525	55	" " " "
63	3521	3377 - 3689	50	
64	3878	3837 - 3879	55	
65	4313	4171	50	Did not drill out
66	4164	No Plug	25	
67	4151	3988	50	" " " "
68	2791	2981	125	" " " "
69	2791	2591 - 2805	70	

No plug 2805 - 2981
2981 - 2988
2988 - 3022

PIPE RECOVERED

1455' of 7"

WELL HISTORY

The Pintura #1 Unit well was drilled on a surface structure which has a maximum closure of approximately 1400' and covers an area of 10,000 acres. The well was commenced March 18, 1951. Extreme lost-circulation difficulties were encountered in the drilling of this well. Lost circulation was first encountered at 175' below the surface and at intervals down to 938'; however, each time it was regained by the addition of lost circulation materials. From 938' to 4151' we were plagued with lost circulation, forcing us to set 68 cement plugs in an effort to cement off the zones where circulation was being lost. It also necessitated the setting of two whipstocks, one at 1420' and a second at 1438', 1078' of 13 3/8" surface pipe and a 4532' 7" protection string.

The hole was drilled to 1141' after which 13 3/8" casing was started in hole. The pipe stuck at 1078' and in trying to work it loose it parted at 753', leaving 323' in the hole. The two strings of pipe were screwed together and cemented at 1078' with 910 sacks. The hole was then drilled to 1623' where a bad lost circulation zone was encountered. The hole was cemented back to the surface pipe, after which the cement was drilled out and the hole deepened to 1700' where circulation was again lost. Drilling was continued from 1700' to 2082' with no returns. At 2082' the drill pipe was stuck. The pipe was shot off at 1690' after jarring failed to loosen it. A cement plug was set from top of fish back to 1370' and drilled out to 1420' where whipstock #1 was set. Cement was drilled out and at 7' below the whipstock the bit went back into the old hole. Whipstock #2 was set at 1438' and new hole drilled to 1700' where circulation was lost. From 1700' to 1715' six plugs were necessary to regain circulation. Lost circulation difficulties continued from 1700' to 4164' as is indicated by the plugging report. The top of the Kaibab limestone was encountered at 4498' and drilled to 4534'. At this point it was deemed advisable to set a string of 7" protection pipe; this was cemented at 4532' after running an electric log and temperature survey to 4534'. The well was then drilled to 5496', 202' into the Coconino sandstone. The well was abandoned as a dry hole September 19, 1951 after finding no shows of oil or gas in the basal Moenkopi, Kaibab limestone, or Coconino sandstone.

WELL 100

Navajo Sandstone

Surface - 510'	fine to medium, well rounded, poorly sorted, white to salmon pink, free drilling sandstone
510' - 730'	fine to medium coarse, rounded, poorly sorted sandstone
730' - 905'	fine to medium, rounded sandstone with thin streaks of smooth red shale. Trace of black, dead oil 860'-70'.

Chinle - 905' (+4349')

905' - 930'	salmon pink, fine, shaly sandstone grading into very gritty siltstone
930' - 962'	no returns
962' - 970'	Core #1: recovered 2' very fine salmon pink shaly sandstone, fairly well sorted
970' - 1000'	no returns
1000' - 1020'	Core #2: Recovered 14'7" - 13'7" very fine to fine, angular sandstone with argillaceous matrix. Thin partings of red shale; 1' dark red gritty shale
1020' - 1121'	no returns
1121' - 1141'	Core #3: Recovered 4'2" - 1'6" dark red very fine grained gritty mica shale; 1'2" very fine light mica angular sandstone, red shale streaks; 1'4" dark red gritty shale. Estimated dip 5°
1141' - 1160'	no returns
1160' - 1370'	red to maroon, smooth to gritty shale with streaks fine argillaceous sandstone; thin stringers of gypsum
1370' - 1385'	no returns
1385' - 1520'	red gritty shale with streaks of gypsum and fine to very fine angular sandstone
1520' - 1540'	smooth to gritty red shale
1540' - 1575'	red to purplish gritty shale with streaks of medium to medium coarse conglomeritic sandstone
1575' - 1590'	purplish to green shale with streaks of gray finely crystalline limestone
1590' - 1600'	fine calcareous, argillaceous sandstone
1600' - 1610'	chocolate brown shale
1610' - 1702'	red to dark red silty shale with streaks fine argillaceous sandstone
1702' - 1710'	red, fine argillaceous sandstone
1710' - 1750'	dark reddish brown siltstone and very fine argillaceous sandstone
1750' - 1760'	red to grey, very fine to fine, angular sandstone
1760' - 1770'	no returns
1770' - 1780'	reddish-brown siltstone
1780' - 1790'	very fine angular reddish sandstone
1790' - 1800'	dark brown shale with streaks of gypsum
1800' - 1810'	gray-green to purplish mottled shale with very fine red sandstone
1810' - 1820'	red very fine angular porous well bonded sandstone
1820' - 1840'	vari-colored shale
1840' - 1850'	dark purplish-gray calcareous shale
1850' - 1860'	red-brown shaly siltstone
1860' - 1865'	smooth gray shale
1865' - 1870'	light gray-green, very fine to fine, slightly argillaceous to [illegible] sandstone
[illegible]	[illegible] brown shale with [illegible] sandstone, slightly

	mica, slightly glauconitic, silty sandstone
2100' - 2125'	vari-colored shale with fine sandstone (electric log shows some porosity)
2125' - 2155'	dark brown chocolate shale with streaks siltstone
2155' - 2163'	light gray crystalline limestone
2163' - 2210'	vari-colored shale
2210' - 2232'	white to gray, medium coarse, poorly sorted, well bonded sandstone
2232' - 2245'	brown shale
2245' - 2262'	Core #4: recovered 14'
	2' purple very soft earthy shale with some organic material
	2'10" dark purple organic shale with hard nodules
	1'4" dark purple organic shale interspersed with dark purple to green siltstone and earthy shale with few grains coarse to medium angular quarts
	2' white to gray friable medium to fine angular to rounded porous sandstone with small fractures
	3' light purple sandstone with red shale poorly sorted angular to rounded, glauconitic
	8" fine to medium angular, salt and pepper sandstone
	1'4" light gray medium fine angular loosely cemented sandstone
2262' - 2272'	sandstone, as above
2272' - 2330'	red brown shale becoming dark gray waxy shale with streak of sandstone 2298' to 2305'.
2330' - 2380'	multi-colored fine to coarse poorly sorted sandstone with shale streaks
2380' - 2515'	vari-colored smooth to gritty shale
2515' - 2550'	light gray-green tight limy sandstone with gray shale

Shinarump - 2550' (+2704')

2550' - 2609'	fine to medium coarse, angular, slightly calcareous sandstone becoming medium to coarse poorly sorted angular to rounded conglomeritic sandstone
2609' - 2614'	Core #5: no recovery
2614' - 2640'	gray shale
2640' - 2655'	white fine to coarse sub-rounded sandstone
2655' - 2675'	gray-green to purple shale
2675' - 2727'	poorly sorted loosely cemented sandstone with brown silty shale

Moenkopi

2727' - 2760'	brown mica shale
2760' - 2770'	no returns
2770' - 2780'	gray shale with streak of gray crystalline limestone
2780' - 2830'	red to reddish brown silty shale
2830' - 2850'	gray to brown shale and silty shale with streaks of cream colored limestone
2850' - 2860'	gray-purple fractured shale
2860' - 2870'	brown shale
2870' - 2900'	vari-colored mica gypsiferous shale
2900' - 2930'	light brown to brown shale and silty shale
2930' - 2935'	streak of brown silty dolomite
2935' - 2980'	red silty shale with streaks of gray shale
2980' - 3020'	fine rounded soft calcareous sandstone
3020' - 3040'	gray shale
3040' - 3130'	brown, gray and gray-green shale and silty shale with streak of fine crystalline limestone
3130' - 3140'	gray [illegible] shale
[illegible]	[illegible] limestone
[illegible]	[illegible] shale

[redacted] Core #6: recovered 12'6" Average dip 18°

7" light gray to tan silty [redacted]olomitic limestone with thin brown shale streaks 1/8" to 1/16" thick, good bedding planes
40" of uniform dark brown mica shale. Slightly limy with small limestone inclusions 1/8" in diameter
26" chocolate brown shale with streaks of gray-brown dolomite, very thin, irregular
7" brown shale with green-gray dolomite, fractured
10" gray to slightly tan gray dolomite with a few thin varve of brown shale, hard, unbroken, well bedded
19" alternating brown shales and thin gray crystalline dolomite, slightly broken, thin bedded
36" broken, very thin bedded, chocolate brown shale, very hard, ripple marked

3217' - 3245' brown mica shale with streaks of dolomite
3245' - 3250' gray shaly dolomitic siltstone
3250' - 3255' light gray crystalline limestone
3255' - 3260' gray limy siltstone
3260' - 3290' brown to purplish brown silty shale
3290' - 3350' tan to greenish-gray shaly dolomite; some pyrite
3350' - 3360' light gray-green conglomeritic limestone
3360' - 3370' anhydrite and gray shaly dolomite
3370' - 3390' light gray-brown sandy dolomite
3390' - 3434' light gray-green and brown silty dolomite
3434' - 3450' Core #7: recovered 16'

7" light brown shale with little anhydrite, streaks of gray shaly dolomite, glauconitic
29" gray tanish dolomitic limestone with anhydrite; micro-crystalline, sugary
7' chocolate brown calcareous shale with streaks of gray to tandolomite intermixed with white sugary to coarse crystalline anhydrite
6' gray shale and crystalline to sugary gray limy dolomite. Good bedding planes with thin streaks anhydrite. No shows, porosity, or permeability.

3450' - 3520' gray-green, brown and purplish shale and dolomitic shale with streaks anhydrite. Slight amount of pyrite
3520' - 3550' light gray-green shale and brown anhydrite; crinoid fossil stems
3550' - 3580' siltstone, dark purplish-black waxy shale and anhydrite
3580' - 3590' finely crystalline dolomite
3590' - 3615' reddish brown shale and dolomitic shale with anhydrite
3615' - 3650' brown to white granular anhydrite and shaly oolitic dolomite
3650' - 3882' vari-colored gray, green and reddish brown mica to smooth shale with streaks of anhydrite
3882' - 3890' light to dark brown very silty shale
3890' - 3900' brown mica shale
3900' - 3960' gray-green to brown shale with streaks of anhydrite and dolomite
3960' - 4040' light gray-green dolomitic and limy shale with streaks anhydrite
4040' - 4085' tan to gray crystalline oolitic to conglomeritic limestone becoming light to dark gray sucrose limestone with dark shaly inclusions
4085' - 4170' reddish brown shale and silty shale with limestone streaks and anhydrite
4170' - 4310' brown to reddish-brown silty shale
4310' - 4340' brown limy shale

(2)

4340' - 4375' brown to purplish-gray shale with streaks of fine calcareous sandstone
4375' - 4420' light gray to tan pyritic sandy limestone
4420' - 4432' fine white calcareous pyritic sandstone
4432' - 4441' Core #8: no recovery
4441' - 4468' tan, light gray to dark gray crystalline cherty pyritic limestone
4468' - 4485' Core #9: recovered 3'6"
- 2" light gray micro crystalline limestone with very fine quartz grains and 1/8" vein of white calcite
- 1½" as above, no bedding planes
- 2" light gray to green limy sandstone; sand grains are very fine to fine, sub-angular, heavily cemented with limestone; also few pieces of red to brown silty shale
- 12" dark gray to black very soft claystone with chert and sand grains--inclusions of nodular chert; fractured
- 12" blue-gray soft smooth shale, slightly calcareous, contains few sand grains--grit sized nodular chert. In places it grades into impure limestone with calcite and chert and shale inclusions
- 12" light gray to dark gray limestone; granular with black shale inclusions, slightly vugy, has flowage pattern, medium hard

The physical character of the above core indicated that it was taken in the gouge zone of a fault.

4485' - 4498' blue-gray earthy shale with chert and limestone fragments. Probably fault gouge

Kaibab Limestone - 4498' (+756')

4498' - 4524' dark gray to light tan crystalline fractured limestone
4524' - 4534' Core #10: recovered approximately 1½' of core pieces, round and angular fragments. Dark gray to white, dense to crystalline limestone and blue gray cherty limestone particles recemented with calcite. Small fractures and vugs; fractures are coated with black insoluable residue (carbonaceous material?) waxy - no odor; fair porosity; carries fossil crinoid stems.
4534' - 4553' blue-gray dense to crystalline slightly fractured vuggy limestone
4553' - 4564' Core #11: recovered 11'
- 10' limestone, light gray to light tan, coarse crystalline to micro-crystalline, hard and massive with no bedding planes. Fractured throughout with calcite crystals developed along face of fractures. Fair porosity, few small vugs, numerous stylolites and fossils, brachapods, and corals. Black shaly carbonaceous residue in fractures.
- 1' limestone, small broken fragments same as above

4564' - 4574' Core #12: recovered 7'8"
- 2'4" limestone, light gray to white gray in color, coarse crystalline to micro-crystalline fractured, massive fossiliferous, stylolitic, and fairly porous. Carbonaceous coating.
- 3'6" limestone, same as above; good solid core
- 2' limestone, broken pieces of core, well fractured and crushed due to jamming in core barrel

No oil shows or staining

4578' - 4589'	Core #13: recovered 13'
	7' limestone, light blue gray and light tannish gray in in color, mottled, coarse crystalline to medium crystalline; hard, massive with blue gray chert nodules. Fractured throughout with calcite crystals and carbonaceous shale coated along faces; fair porosity
	3' limestone as above, perhaps a little more cherty
	1' limestone highly fractured, excellent porosity, no change in lithology.
	1' limestone good to fair porosity, same lithology
	2' approximately limestone, broken pieces; lithologically same as rest of core
	A few scattered fossils in core; no shows
4589' - 4592'	Core #14: recovered 1'
	Limestone pieces light gray, coarse to medium crystalline, all pieces were fractured and coated with black carbonaceous material and some calcite crystals formed in fractured areas. Good porous lime, both macro and microfossils; no shows.
4592' - 4760'	light gray to tan, sucrose to crystalline, cherty, fossiliferous limestone; fractured, vuggy in part with streaks of good porosity.
4760' - 4810'	white to dark gray, fine crystalline to crystalline, slightly sandy limestone; fractured, abundant calcite crystals.
4810' - 4840'	dark gray-brown, sucrose to crystalline, vuggy, very porous limestone
4840' - 4850'	gray oolitic limestone
4850' - 4860'	white to cream, soft, sucrose limestone with streaks of anhydrite
4860' - 4910'	anhydrite with streaks of dark gray, pyritic slightly sandy dolomite
4910' - 5000'	anhydrite with streaks of dark gray limestone--cherty in lower part
5000' - 5100'	dark gray to light gray, micro-crystalline to crystalline limestone with few streaks anhydrite. Vuggy in places with good porosity.
5100' - 5190'	light gray to tan, fine crystalline to sucrose limestone with some milky chert
5190' - 5220'	light gray, slightly sandy, cherty, hard dolomite and limestone with streaks of anhydrite
5220' - 5250'	light gray, dense, cherty, dolomitic limestone
5250' - 5294'	reddish silty dolomite with streaks of anhydrite
Coconino - 5294' (- 40')	
5294' - 5400'	white, fine to medium, sub-angular to sub-rounded friable sandstone
5400' - 5496'	total depth; white to light tannish-gray, well sorted, medium grained, sub-rounded, friable sandstone.